HY-100

Long Range Barcode Scanner

User’s Manual

CATALOG

Program procedure using scanner menus

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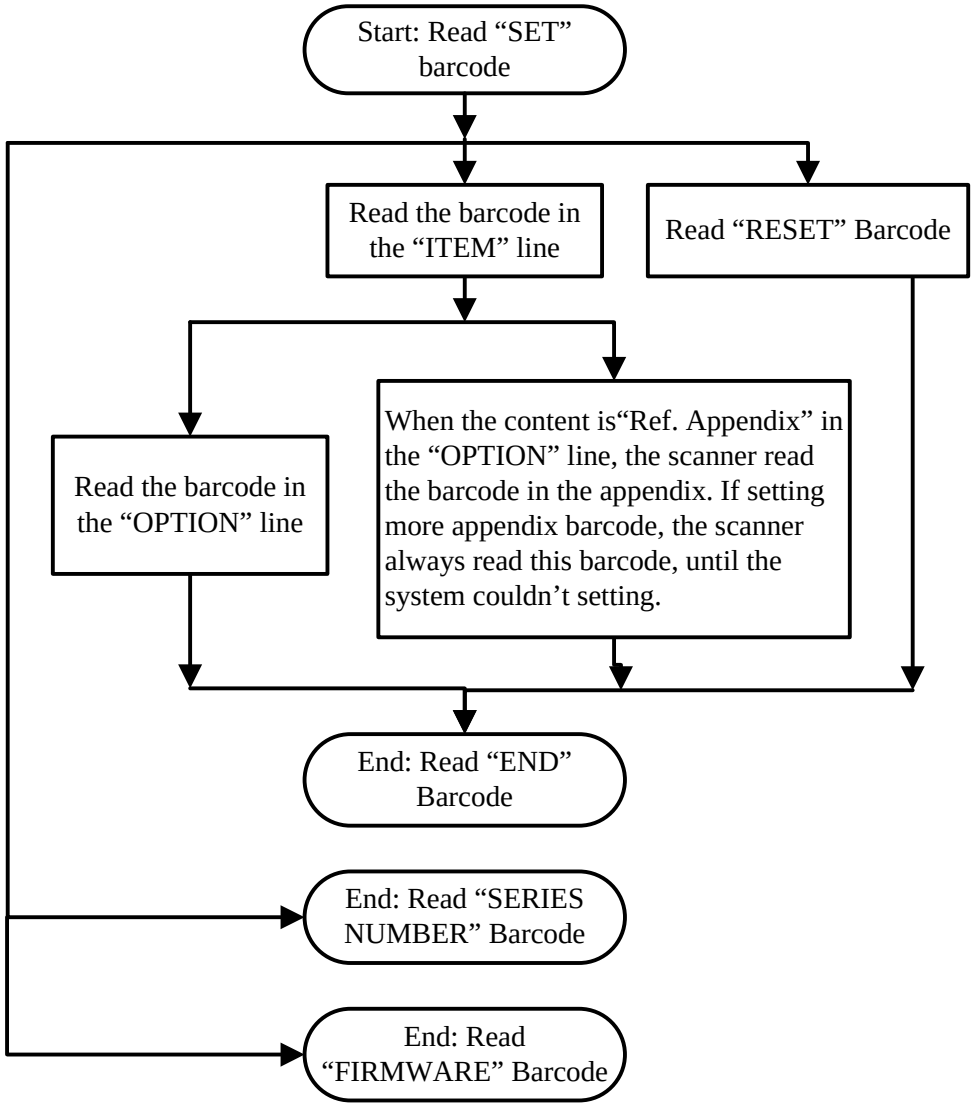
PROGRAM PROCEDURE USING SCANNER MENUS:


Start: Read “SET” barcode
Read the barcode in the “ITEM” line
Read “RESET” Barcode
Read the barcode in the “OPTION” line
When the content is“Ref. Appendix” in the “OPTION” line, the scanner read the barcode in the appendix. If setting more appendix barcode, the scanner always read this barcode, until the system couldn’t setting.
End: Read “END” Barcode
End: Read “SERIES NUMBER” Barcode
End: Read “FIRMWARE” Barcode

1.System Information

1.1 Restore default

The reading of the “RESET” label turns all the parameters back to default values.

1.2 Show firmware version

The reading of the “FIRMWARE VERSION” label will be shown firmware version.

1.3 Show series number

The reading of the “SERIES NUMBER” label will be show series number.

RESET
FIRMWARE
SERIES NUMBER

2. System Setup

2.1 Interface selection

There are two kinds of different interfaces to be chosen now.

The scanner remains in the last interface type when the scanner is reset.

2.1.1 Keyboard emulation parameters setting

Choose the appropriate type of keyboard emulation by scanning the labels under the following labels.

ITEM	OPTION
INTERFACE	KEYBOARD (Default)
	RS-232
EMULATION SELECTION	IBM AT (Default)
	PS/2 30-80
EMULATION SELECTION	IBM5550
	IBM XT
	IBM 5530-SC
	IBM 5530-ZC
	NEC 9801
	PS/2 30,5

Keyboard language selection:

Function key active ON/OFF (For IBM AT only):

END

Function keys can be concatenated with input data as header and/or trailer.

Keyboard type selection:

ITEM	OPTION
LANGUAGE SELECTION	USA (Default)
	UK
	Germany
	French
	Spanish
	Italian
	Swiss
	Swedish
FUNCTION KEY	OFF (Default)
	ON
KEYBOARD TYPE	Scan Code mode (Default)
	Alt mode
	Ctrl mode

END

Capital Lock ON/OFF:

Select the suitable code to match your keyboard caps lock status.

Num Lock ON/OFF:

Inter-Character delay (for keyboard wedge):

This option governs delay time among consecutive characters.

ITEM	OPTION
CAPS LOCK	OFF (Default)
	ON
NUM LOCK	OFF (Default)
	ON
INTER-CHAR DELAY (for KB)	0 ms
	10 ms
	20 ms
	30 ms
	40 ms (Default)
	50 ms
	60 ms
	70 ms

END

	80 ms
	90 ms
	100 ms

Message terminator (for keyboard wedge):

Inter-Message delay (for keyboard wedge):

This option governs delay time between consecutive messages.

2.1.2 RS-232 Serial communication setting

With this option of communication protocol, you can tailor the scanner to meet the requirement of most systems.

ITEM	OPTION
MESSAGE TERMINATOR (for KB)	None
	Enter (Default)
	Tab
	Execute
INTER-MESSAGE DELAY (for KB)	0 ms (Default)
	100 ms
	500 ms
	1000 ms

BAUD RATE	600 bps
	1200 bps
	2400 bps
	4800 bps
	9600 bps (Default)
	19200 bps
DATA BIT	7 Bits
	8 Bits (Default)

Inter-Character delay (for RS-232):

This option governs delay time between consecutive characters.

Inter-Message delay (for RS-232):

ITEM	OPTION
STOP BIT	1 (Default)
	2

END

PARITY	None (Default)
	Even
	Odd
	Mark
	Space

ITEM	OPTION
INTER-CHARACTER DEL AY (for RS-232)	0 ms (Default)
	10 ms
	50 ms
	100 ms
INTER-MESSAGE DELAY (for RS-232)	0 ms (Default)
	100 ms
	500 ms
	1000 ms

END

Message terminator (For RS-232):

Handshaking protocol:

The RS-232 scanner supports four handshaking protocols.

ACK/NAK response time setting:

ITEM	OPTION
MESSAGE TERMINATOR (for RS-232)	None
	CR/LF (Default)
	CR
	LF
	H Tab
	STX/ETX
	EOT

ITEM	OPTION
HANDSHAKING SELECTION	None (Default)
	RTS/CTS
	ACK/NAK
	Xon/Xoff

END

RESPONSE TIME	300 ms
	800 ms (Default)
	1500 ms
	5000 ms

2.2 Scanning mode selection

Trigger mode：

The scanner becomes inactive as soon as the data is transmitted. It must be triggered to become active again.

Auto scan mode：

The scanner is always on, put the barcode before the scan line, decode just one time. Decode again only when change barcode. If decode the same barcode once more, put it on the scan line, then scan works the second time.

Alternate mode：

When press the scanner trigger switch once, this scanner will light up. Simultaneously, The scanner decoded only once when put the barcode on the scan line. If put the barcode on the scan line again, the scanner decoded again. Then, the scanner will turn off for next pressing.

Repeat mode：

This mode is similar to Auto scan mode, but double reading for the same barcode is prohibited if the scanner switch is pressed.

Testing mode：

The scanner is always on. All the while, the scanner decoded and transmitted the data when the barcode is put on scan line.

Turbo trigger mode：

When the trigger is pressed, the scanner decoded sequentially.

END

ITEM	OPTION
SCANNING MODE SELECTION	Trigger mode (Default)
	Auto scan mode
	Alternate mode
	Repeat mode
	Testing mode
	Turbo trigger mode

2.3 Beeper selection:

ITEM	OPTION
BEEPER TONE	Very low
	Low (Default)
	Medium
	High
BEEPER SOUND DURATION	Disable
	Very short
	Short
	Medium
	Long (Default)

2.4 Header and Trailer

This option allows you to append a header and/or a trailer to every message transmitted via the serial ports or the keyboard port. There is no restriction in selecting header or trailer characters as far as the sum of the lengths of header and trailer is not greater than 10 digits.

1. Select either header or trailer you are going to program by scanning the corresponding label
2. Scan the character you want from the enclose ASCII table to set as header or trailer.
3. Read the “SET” label to set your choice into memory.

ITEM	OPTION
HEADER	None (Default)
	Ref. Appendix
TRAILER	None (Default)
	Ref. Appendix

3. Barcode parameters setting

3.1 UPC-A

ITEM	OPTION
READABLE	Disable
	Enable (Default)
IDENTIFIER CODE	Disable (Default)
	Ref: Appendix

ITEM	OPTION
FORCE UPC-A TO EAN-13 FORMAT	Disable (Default)
	Enable
TRANSMITTING CHECK DIGIT	Disable
	Enable (Default)
NOT TRANSMITTING LEADING CHARACTER	Disable
	Enable (Default)
CUT FRONT	0 (Default)
	Ref. Appendix
CUT BACK	0 (Default)
	Ref. Appendix

UPC- A

ITEM	OPTION
ADDENDUM	None (Default)
	2 bits
	5 bits
	2 or 5 bits

3.2 UPC-E

ITEM	OPTION
READABLE	Disable
	Enable (Default)

IDENTIFIER CODE	Disable (Default) Ref: Appendix
FORCE UPC-E TO UPC-A FORMAT	Disable (Default) Enable
TRANSMITTING CHECK DIGIT	Disable Enable (Default)
CUT FRONT	0 (Default) Ref. Appendix
CUT BACK	0 (Default) Ref. Appendix

UPC-E

NOT TRANSMITTING LEADING CHARACTER	Disable
	Enable (Default)
ADDENDUM	None (Default)
	2 Bits
	5 Bits
	2 or 5 Bits

3.3 EAN-13

ITEM	OPTION
READABLE	Disable
	Enable (Default)
IDENTIFIER CODE	Disable (Default)
	Ref: Appendix
TRANSMITTING CHECK DIGIT	Disable
	Enable (Default)
CUT FRONT	0 (Default)
	Ref. Appendix

END

EAN- 13

EAN-13 transfer to ISBN/ISSN

ITEM	OPTION
CUT BACK	0 (Default)
	Ref. Appendix
ADDENDUM	None (Default)
	2 Bits
	5 Bits
	2 or 5 Bits
TRANSFER TO ISBN/ISSN	Disable (Default)
	Enable

3.4 EAN-8

ITEM	OPTION
READABLE	Disable
	Enable (Default)
IDENTIFIER CODE	Disable (Default)
	Ref: Appendix
TRANSMITTING CHECK DIGIT	Disable
	Enable (Default)
CUT FRONT	0 (Default)
	Ref. Appendix
CUT BACK	0 (Default)
	Ref. Appendix
ADDENDUM	None (Default)
	2 Bits
	5 Bits
	2 or 5 Bits

END

3.5 Code 39

ITEM	OPTION
READABLE	Disable
	Enable (Default)

ITEM	OPTION
IDENTIFIER CODE	Disable (Default)
	Ref: Appendix
CALCULATING	Disable (Default)
	Enable
TRANSMITTING CHECK DIGIT	Disable
	Enable (Default)
CONCATENATION	Disable (Default)
	Enable
MIN	0
	Ref. Appendix (0~64) (Default 0)

Parameters setting:

END

It is possible, if using Code 39's "Full ASCII Mode" to encode all 128 ASCII characters.

ITEM	OPTION
MAX	0
	Ref. Appendix (00~64) (Default 32)
PARAMETERS	Standard (Default)
	Full ASCII
START/STOP CHARACTER TRANSMISSION	Disable (Default)
	Enable

3.6 Codabar

ITEM	OPTION
READABLE	Disable
	Enable(Default)
IDENTIFIER CODE	Disable (Default)
	Ref: Appendix

MAX	0
	Ref. Appendix (0~64) (Default 32)

ITEM	OPTION
CALCULATING	Disable(Default)
	Enable
TRANSMITTING CHECK DIGIT	Disable
	Enable (Default)
CUT FRONT	0 (Default)
	Ref: Appendix

CUT BACK	0 (Default)
	Ref: Appendix
START/STOP CHARACTER TYPE	ABCD/ABCD (Default)
	abcd/abcd
	abcd/tn*e
START/STOP CHARACTER TRANSMISSION	Disable (Default)
	Enable
MIN	0
	Ref. Appendix (0~64) (Default 0)

END

3.7 Code 93

ITEM	OPTION
READABLE	Disable
	Enable (Default)
IDENTIFIER CODE	Disable (Default)
	Ref. Appendix
CALCULATING	Disable (Default)
	Enable

TRANSMITTING CHECK DIGIT	Disable
	Enable (Default)
MIN	0
	Ref. Appendix (0~64) (Default 0)
MAX	0
	Ref. Appendix (0~64) (Default 32)
CUT FRONT	0 (Default)
	Ref: Appendix
CUT BACK	0 (Default)
	Ref: Appendix

END

3.8 Code 128

ITEM	OPTION
READABLE	Disable
	Enable(Default)
IDENTIFIER CODE	Disable (Default)
	Ref: Appendix
CALCULATING	Disable (Default)
	Enable

TRANSMITTING CHECK DIGIT	Disable
	Enable (Default)
FNC2 CONCATENATION	Disable (Default)
	Enable
UCC/EAN 128	Disable (Default)
	Enable
FNC1 TRANSMITTED	Disable
	Enable (Default)

END

Code 128

ITEM	OPTION
CUT FRONT	0 (Default)
	Ref. Appendix
CUT BACK	0 (Default)
	Ref. Appendix
MIN	0
	Ref. Appendix (0~64) (Default 0)
MAX	0
	Ref. Appendix (0~64) (Default 32)

3.9 Interleaved 2 of 5

ITEM	OPTION
READABLE	Disable
	Enable (Default)
IDENTIFIER CODE	Disable (Default)
	Ref. Appendix
CALCULATING	Disable (Default)
	Enable
TRANSMITTING CHECK DIGIT	Disable
	Enable (Default)

CUT FRONT	0 (Default)
	Ref. Appendix
CUT BACK	0 (Default)
	Ref. Appendix
MIN	0
	Ref. Appendix (0~64) (Default 0)
MAX	0
	Ref. Appendix (0~64) (Default 32)

END

3.10 Industrial 2 of 5

ITEM	OPTION
READABLE	Disable
	Enable (Default)
IDENTIFIER CODE	Disable (Default)
	Ref. Appendix
MIN	0
	Ref. Appendix (0~64) (Default 0)
MAX	0
	Ref. Appendix (0~64) (Default 32)

CUT FRONT	0 (Default)
	Ref. Appendix
CUT BACK	0 (Default)
	Ref. Appendix

3.11 Standard 2 of 5

ITEM	OPTION
READABLE	Disable (Default)
	Enable
IDENTIFIER CODE	Disable (Default)
	Ref. Appendix

CUT FRONT	0 (Default)
	Ref. Appendix
CUT BACK	0 (Default)
	Ref. Appendix
MIN	0
	Ref. Appendix (0~64) (Default 0)
MAX	0
	Ref. Appendix (0~64) (Default 32)

END

3.12 Matrix 2 of 5

ITEM	OPTION
READABLE	Disable (Default)
	Enable
IDENTIFIER CODE	Disable (Default)
	Ref. Appendix
CALCULATING	Disable (Default)
	Enable

TRANSMITTING	Disable
	Enable (Default)
CUT FRONT	0 (Default)
	Ref. Appendix
CUT BACK	0 (Default)
	Ref. Appendix
MIN	0
	Ref. Appendix (0~64) (Default 0)
MAX	0
	Ref. Appendix (0~64) (Default 32)

END

3.13 MSI/Plessey

ITEM	OPTION
READABLE	Disable (Default)
	Enable
IDENTIFIER CODE	Disable (Default)
	Ref. Appendix
CHECK DIGIT	Calculate 2 bits But not transmit
	Not calculate (Default)

CHECK DIGIT	Calculate 2 bits Transmit 1 bit
	Calculate 2 bits Transmit 2 bits
	Calculate 1 bit But not transmit
	Calculate 1 bit Transmit 1 bit
	Calculate and Transmit
	Calculate but not transmit

MSI/Plessey

ITEM	OPTION
CUT FRONT	0 (Default)
	Ref. Appendix
CUT BACK	0 (Default)
	Ref. Appendix
MIN	0
	Ref. Appendix (0~64) (Default 0)
MAX	0
	Ref. Appendix (0~64) (Default 32)

APPENDIX

CODE 39 FULL ASCII BAR CODE TABLE

NUL

SOH

STX

ETX

EOT

ENQ

ACK

BEL

BS

HT

LF

j

END

VT

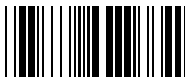
FF

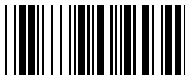
CR

SO

SI

DLE


DC1


DC2

DC3

DC4

NAK

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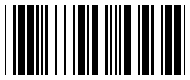
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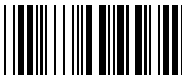
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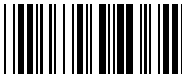
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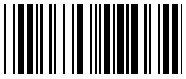
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